



STATE OF INDIANA

SCHOOL CONSTRUCTION ANNUAL REPORT 2003-2004

The Department of Local Government Finance (DLGF) is responsible for reviewing projects utilizing short term and long term debt for school improvements in Indiana and is required by law to examine the fiscal impact of these projects on taxpayers.

In 2003, \$835 million was approved for school construction in Indiana. In 2004, that number rose to \$931 million. Because of the significant amount of public funds expended on school construction, the State of Indiana, through DLGF oversight, must ensure construction projects are cost effective and affordable to taxpayers.

PURPOSE:

The purpose of this report is:

- to compare the costs of school building projects in Indiana to national school building costs,
- to compare the size of school building projects in Indiana to the size of national school building projects,
- to examine the statewide impact of school construction debt on taxpayers,
- to present historical data on school construction projects approved over the last two years, and
- to establish thresholds to serve as benchmarks in providing guidance to school officials for the cost of their projects. (*See page 9.*)

The collection of project data now, and in the future, will provide the basis for the guidance the DLGF utilizes in evaluating a project.

CONSTRUCTION CATEGORIES:

Data on this subject is primarily divided into three types of construction projects:

- new buildings,
- additions, and
- renovations.

Important Note: Projects consisting of a combination of additions and renovations are not included in this analysis.

INFORMATION SOURCES:

For this analysis, the DLGF obtained data from:

- McGraw-Hill-F.W. Dodge Analytics (Dodge), a leading provider of construction data for private and public entities.
- The DLGF levy data comes from the Local Government Data Base, (LOGODABA).
- The DLGF construction and project cost data is collected from information submitted to the School Property Tax Control Board (Control Board) on a document referred to as the "Hearing Information Sheet." The DLGF Hearing Information Sheet provides cost estimates at the schematic design stage of the project.

I. DATA FINDING: INDIANA SPENDS MORE AND BUILDS BIGGER

NEW CONSTRUCTION DATA:

- Indiana's \$126.40 per square foot cost for new construction projects was 3.4% higher than the national average of \$122.25 per square foot. *(See Bar Graph I, page 3.)*
- Indiana's average size of 107,431 square feet per new building was 43.1% larger than the national average size of 75,055 square feet per new building. *(See Bar Graph II, page 3.)*
- Indiana's average construction cost of \$13,579,037 per new building was 48% higher than the national average of \$9,175,209. *(See Bar Graph III, page 4.)*

In 2003 and 2004 that difference amounted to an \$118,903,358 annual excess premium paid by taxpayers to construct new K-12 school buildings.

ADDITIONS TO EXISTING BUILDING DATA:

- Indiana's \$216.52 per square foot cost for additions to K-12 schools was 25.9% higher than the national average of \$172.00 per square foot. *(See Bar Graph I, page 3.)*
- Indiana's average size of 32,407 square feet per addition was 27.4% larger than the national average of 25,430 square feet per addition. *(See Bar Graph II, page 3.)*
- Indiana's average construction cost of \$7,016,738 per addition was 60.4% higher than the national average of \$4,374,073. *(See Bar Graph III, page 4.)*

In 2003 and 2004 that difference amounted to a \$141,382,607 annual excess premium paid by taxpayers to add on to K-12 school buildings.

COMBINING NEW CONSTRUCTION AND ADDITIONS DATA:

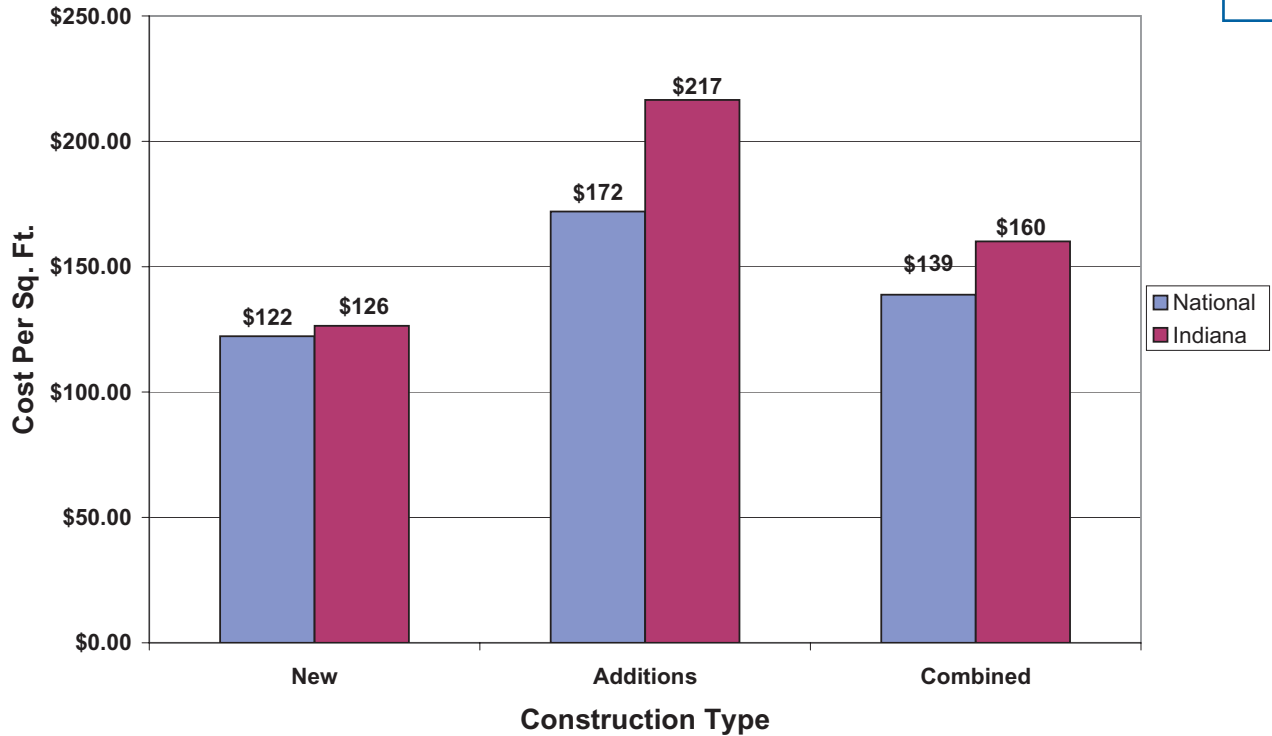
- Indiana's \$160.11 per square foot cost for construction projects for K-12 schools was 15.3% higher than the national average of \$138.82 per square foot. *(See Bar Graph I page 3.)*
- Indiana's average size of 57,570 square feet per project was 26.6% larger than the national average of 45,485 square feet per project. *(See Bar Graph II, page 3.)*
- Indiana's average construction cost of \$9,217,758 per project was 46.0% higher than the national average of \$6,314,393. *(See Bar Graph III, page 4.)*

In 2003 and 2004 that difference amounted to a \$233,720,857 annual excess premium paid by taxpayers to construct or add on to K-12 school buildings.

2003-2004 Post-Bid Construction Cost Per Sq. Ft.

Source: F.W. Dodge Data Analytics

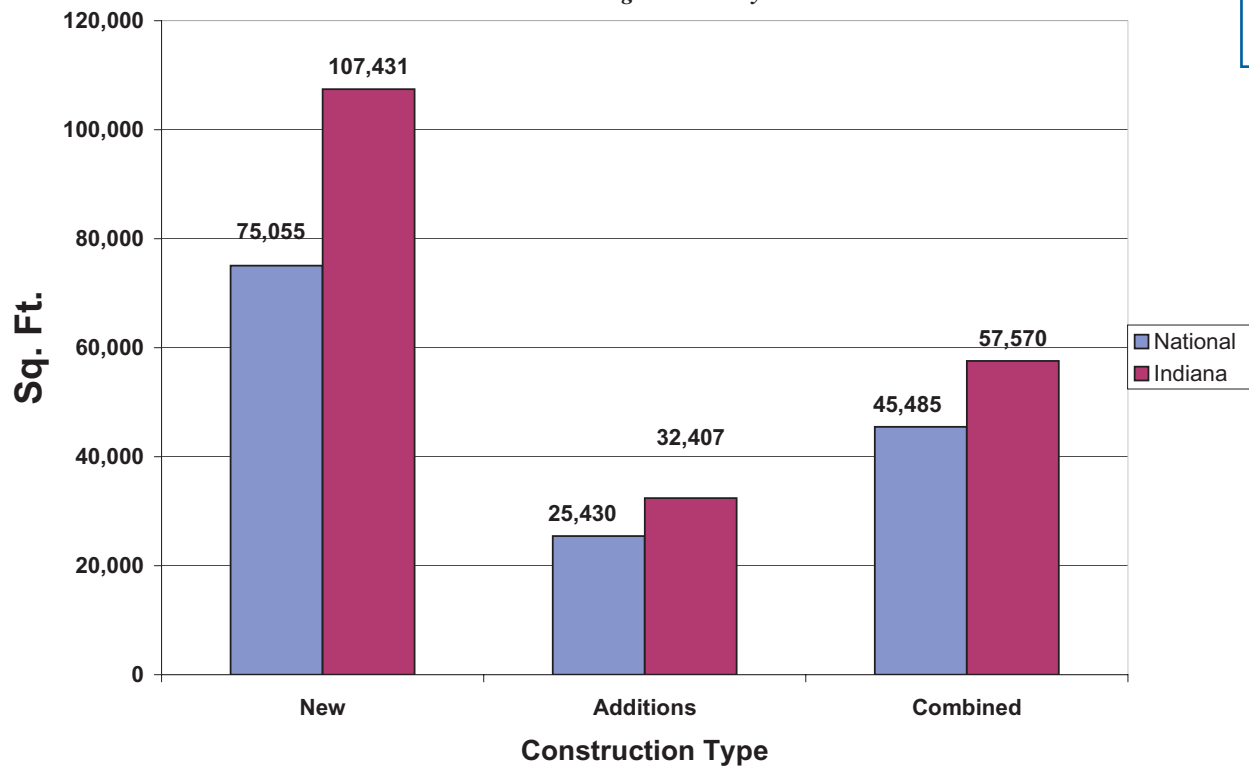
BAR
GRAPH
I



2003-2004 Average Project Size

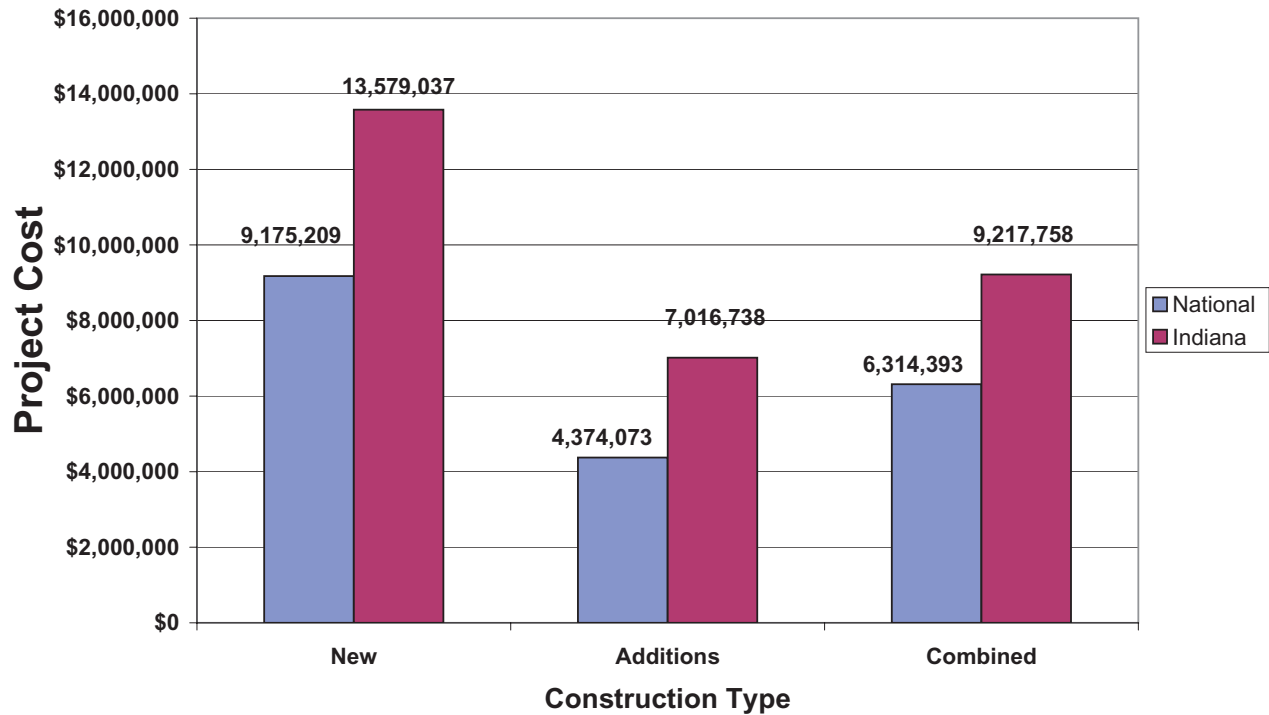
Source: F.W. Dodge Data Analytics

BAR
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II



2003-2004 Average Project Cost

Source: F.W. Dodge Data Analytics



II. DATA FINDING: SCHOOL CONSTRUCTION DEBT HAS A MAJOR IMPACT ON PROPERTY TAXES

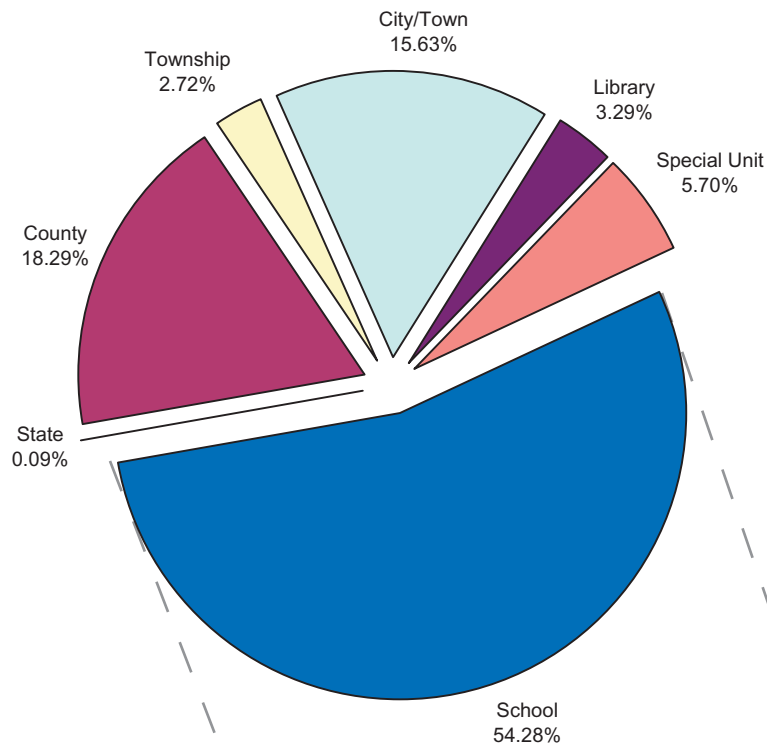
In 2004, Indiana raised over **\$749 million** in property tax dollars to pay for outstanding school construction debt.

Pie Chart A, (see following page), illustrates **54%** of property tax dollars raised are for total school funding. This includes operations, transportation, bus replacement, capital projects and other funds.

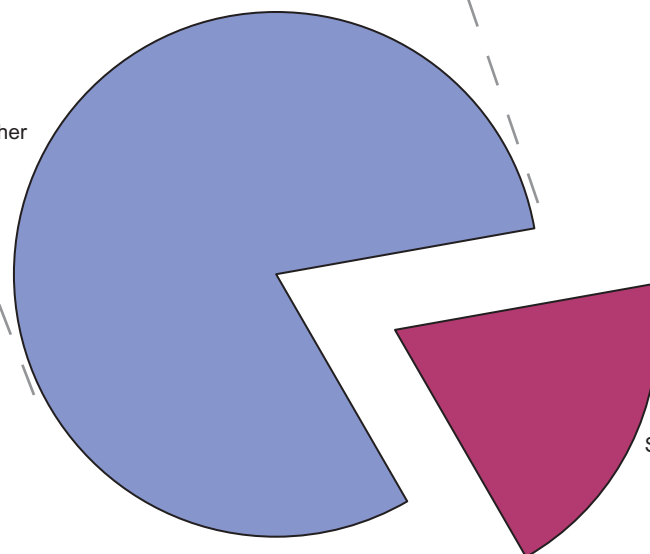
Nearly **one fifth of the 54%** is levied for payment on school construction debt, as shown in Pie Chart B, (see following page). The school building debt certified levy total is greater than the certified levy for the state, all libraries, and all townships combined.

In Indiana, the **median amount of school building debt service per student is \$675.57.**

PIE CHART A
2004 CERTIFIED LEVIES BY TYPE OF UNIT
(excluding Brown County)



School Other
81%



Source: DLGF Local Government Data Base
 (LOGODABA)

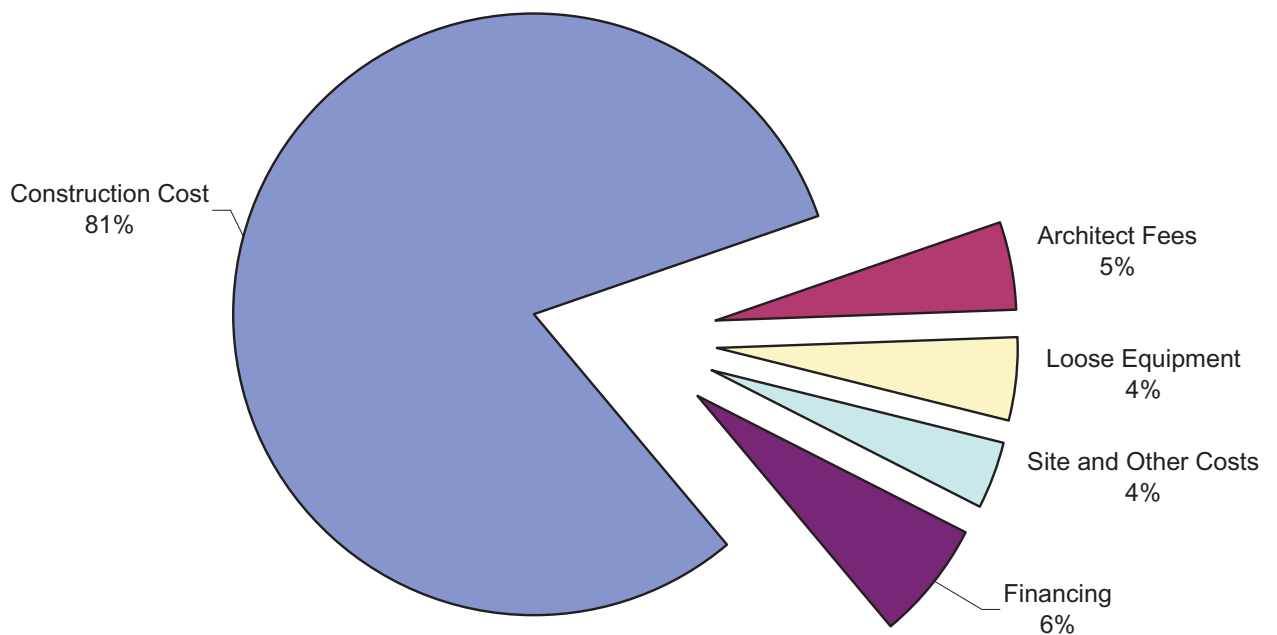
PIE CHART B
2004 SCHOOL BUILDING DEBT LEVY
COMPARED TO TOTAL SCHOOL LEVY
(excluding Brown County)

III. DATA FINDING: SOFT COSTS CAN INFLATE PROJECT COSTS

DLGF data shows for 2003 and 2004 projects, 81% of the total project cost was allocated to construction costs or “hard costs.” The remaining 19% was divided between architect fees, financing costs, advisor fees, and other “soft costs.” The DLGF believes there is a need to track soft costs as they can add substantially to the cost of a project.

The DLGF does not have enough data on this subject to set benchmarks for allocation of total project spending at this time. DLGF will continue to gather data on cost allocations and monitor soft cost spending to keep it within a reasonable range.

PIE CHART C
INDIANA SCHOOL PROJECT COST CATEGORY ANALYSIS
2003-2004 SCHEMATIC DESIGN STAGE



Source: DLGF Hearing Information Sheets 2003-2004

IV. DATA FINDING: WHERE THE \$1.189 BILLION OF CONSTRUCTION DOLLARS WENT IN 2003-2004

For 2003-2004, the DLGF's historical data is limited. Going forward, the revised DLGF Hearing Information Sheet will allow the DLGF to capture more comprehensive data on projects, which will produce greater detail and analysis for future annual reports. Despite these limitations, our data reveals several interesting facts. Table 1 represents the school construction projects approved for 2003 and 2004 by type of construction project.

TABLE 1
DLGF APPROVED INDIANA SCHOOL CONSTRUCTION PROJECTS BY CONSTRUCTION CATEGORY*
(Total Project Costs)

| | 2003 Approved | 2004 Approved | # of Projects | Total Approved | % of Spending |
|--------------|-----------------------|-----------------------|------------------|-------------------------|------------------|
| New Schools | \$ 375,046,195 | \$ 294,139,341 | 31 | \$ 669,185,536 | 56.28% |
| Additions | \$ 86,237,757 | \$ 169,694,646 | 54 | \$ 255,932,403 | 21.52% |
| Renovations | \$ 84,407,965 | \$ 179,516,060 | 115 | \$ 263,924,025 | 22.20% |
| TOTAL | \$ 545,691,917 | \$ 643,350,047 | 200 | \$ 1,189,041,964 | |

**Excludes legal and financing costs of bond issuance and projects consisting of a combination of additions and renovations.
Source: DLGF Hearing Information Sheets 2003-2004*

TABLE 1 SUMMARY:

- New school buildings accounted for 56.28% of the total school construction project spending, even though new buildings represented only **15%** of the total number of projects.
- Renovations to existing schools accounted for over half of the total number of projects undertaken, but less than one fourth of the spending.
- Total spending on addition projects was nearly even with spending on renovation projects.

TABLE 2
DLGF APPROVED INDIANA SCHOOL CONSTRUCTION PROJECTS
BY SCHOOL TYPE & CONSTRUCTION CATEGORY*
(Total Project Costs)

| | New Schools | Additions | Renovations | # of Projects | Total Approved | % of Spending |
|---------------|-----------------------|-----------------------|-----------------------|------------------|-------------------------|------------------|
| Elementary | \$ 345,195,256 | \$ 78,901,601 | \$ 110,264,657 | 120 | \$ 534,361,513 | 44.94% |
| Middle/Inter. | \$ 157,921,868 | \$ 13,186,654 | \$ 21,580,537 | 30 | \$ 192,689,059 | 16.21% |
| High School | \$ 166,068,412 | \$ 163,844,150 | \$ 132,078,831 | 50 | \$ 461,991,392 | 38.85% |
| TOTAL | \$ 669,185,536 | \$ 255,932,404 | \$ 263,924,025 | 200 | \$ 1,189,041,964 | |

**Excludes legal and financing costs of bond issuance and projects consisting of a combination of additions and renovations.
Source: DLGF Hearing Information Sheets 2003-2004*

TABLE 2 SUMMARY:

- Elementary schools accounted for nearly 45% of the total expenditures and 60% of the total number of approved projects.
- School officials are more likely to build a new elementary or middle school facility than to renovate or add on to an existing facility.
- School officials invest much more in high school additions and renovations, accounting for 64% of the total addition expenditures, and 50% of the renovation expenditures.

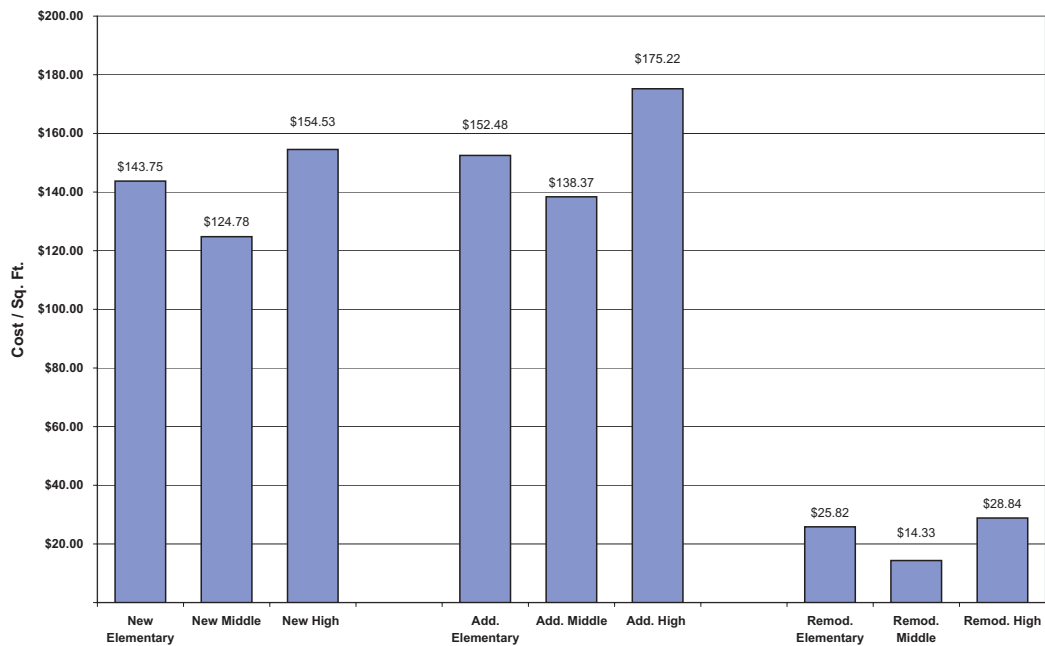
TABLE 3
INDIANA SCHOOL CONSTRUCTION SCHEMATIC DESIGN STAGE
COST PER SQ. FT. BY SCHOOL TYPE & CONSTRUCTION CATEGORY

| | Total Sq. Ft. | Total Construction Cost | Total Project Cost | Construction Cost Sq Ft. | Project Cost Sq. Ft. |
|--------------------------|--------------------------|--|-----------------------------------|-------------------------------------|-------------------------------------|
| New Elementary | 2,078,468 | \$298,784,023 | \$345,195,256 | \$143.75 | \$166.08 |
| New Middle | 1,058,641 | \$132,096,448 | \$157,921,868 | \$124.78 | \$149.17 |
| New High | 826,909 | \$127,780,868 | \$166,068,412 | \$154.53 | \$200.83 |
| Add. Elementary | 454,696 | \$69,332,054 | \$78,901,601 | \$152.48 | \$173.53 |
| Add. Middle | 85,442 | \$11,822,479 | \$13,186,654 | \$138.37 | \$154.33 |
| Add. High | 848,555 | \$148,685,779 | \$163,844,150 | \$175.22 | \$193.09 |
| Remod. Elementary | 3,906,462 | \$100,847,597 | \$110,264,657 | \$25.82 | \$28.23 |
| Remod. Middle | 1,409,021 | \$20,190,534 | \$21,580,537 | \$14.33 | \$15.32 |
| Remod. High | 4,146,638 | \$119,582,549 | \$132,078,831 | \$28.84 | \$31.85 |

Source: DLGF Hearing Information Sheets 2003-2004

BAR GRAPH IV

2003-2004 Indiana Schematic Design Stage Construction Cost per Sq. Ft.



Source: DLGF Hearing Information Sheets 2003-2004

TABLE 3 AND BAR GRAPH IV SUMMARY:

- Additions to existing schools have the highest cost per square foot averages, followed by new school buildings.
- The cost per square foot varies greatly between the type of school and the type of construction activity.
- Complex and diverse curriculum requirements and a greater demand for athletic facilities cause higher project costs at the high school level. High school projects are more expensive for all three types of construction activity.

CONCLUSION:

The data findings of this analysis highlight the need to monitor the costs of school construction projects and to provide information to local school officials to assist them in making cost efficient decisions that facilitate academic achievement. The DLGF understands no two projects are alike, and different communities have different expectations. However, the data presented in this report can be effectively utilized by all stakeholders in school facility projects to ensure tax dollars are spent wisely. To that end, the DLGF has established the following thresholds to serve as benchmarks in providing guidance to school officials for the cost of their projects.

School corporations requesting approval of a construction project in 2005 will be subjected to greater scrutiny if their projects are above the following construction cost per square foot thresholds:

DLGF 2005 CONSTRUCTION COST THRESHOLDS (COST PER SQ. FT.)

| School Type | New Facilities | Additions to Facilities |
|----------------------------|-----------------------|--------------------------------|
| Elementary | \$131 | \$182 |
| Middle/Intermediate | \$131 | \$191 |
| High | \$141 | \$193 |

These thresholds are based on the national average construction cost per square foot for new facilities and additions to existing facilities for the three school types. The amounts represent the national averages with a 10% allowance for contingencies. The threshold amounts will be modified each year in response to changes in the national average and do not include financing costs, land, building and equipment acquisitions, and professional fees.

School corporations will be required to provide a revised total project cost breakdown and an individual cost breakdown for the approved project that reflects project costs at the bid award stage. (*As specified in the DLGF Hearing Information Sheet.*)

The DLGF does not have sufficient data to set additional thresholds at this time. It is our intention to develop thresholds for

- the square footage per student,
- the cost per student,
- the ratio of academic construction costs to non-academic construction costs, and,
- the ratio of academic square footage to non-academic square footage.

Additionally, the DLGF will work to develop cost differential thresholds for regions of the state as data becomes available.